EPO-TEK® H61
Technical Data Sheet
For Reference Only
Thermally Conductive Epoxy

Number of Components:	Single	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	N/A	150°C	30 Minutes
Specific Gravity:	2.40	120°C	60 Minutes
Part A			
Part B			
Pot Life:	25 Days		
Shelf Life:	Six months at -40°C		

Note: Container(s) should be kept closed when not in use. Mix contents thoroughly prior to use. Failure to ship frozen may result in viscosity growth beyond the range of values herein; customer assumes all risk.
**Please see Applications Note available on our website.*

Product Description:

EPO-TEK® H61 is a single component, thermally conductive, electrically insulating, epoxy adhesive for semiconductor, hybrid IC, and electronic circuit assembly applications.

EPO-TEK® H61 Advantages & Application Notes:

- It is a thixotropic paste and a non-sagging adhesive. It is also useful for deposition methods like dispensing, printing, or hand held processes.
- Suggested Applications:
  - Hybrid:
    - Staking SMDs onto the PCB for extra mechanical support; insulation layer between 2 contact pads of caps and resistors.
    - Heat sinking devices on ceramic PCB and PCB to external case; adhesion to Si, Au, kovar, Al-N, BT.
    - Reinforcing and extra mechanical support for wire bond integrity.
  - Electronics:
    - Bonding passive devices such as inductor coils, ferrites, motors, connectors, and various SMDs.
    - Adhesion to FR4 and common PCB substrates and housings.
- Available in various viscosity alternatives and black color. Contact techserv@epotek.com for your best recommendation.

Typical Properties: *(To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 150°C/1 hour ; * denotes test on lot acceptance basis)*

Physical Properties:	
***Color:** Grayish White	**Weight Loss:**
***Consistency:** Smooth paste	**@ 200°C:** 0.08%
***Viscosity (@ 5 RPM/23°C):** 40,000 – 60,000cPs	**@ 250°C:**
Thixotropic Index: 1.32	**@ 300°C:**
***Glass Transition Temp.(Tg):** ≥ 110°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	**Operating Temp:**
Coefficient of Thermal Expansion (CTE):	**Continuous:** - 55°C to 200°C
Below Tg: 17 x 10^{-6} in/in/°C	**Intermittent:** - 55°C to 300°C
Above Tg: 95 x 10^{-6} in/in/°C	**Storage Modulus @ 23°C:** 791,294 psi
Shore D Hardness: 89	**Ions:** **Cl^-** 41 ppm
Lap Shear Strength @ 23°C: 1,144 psi	**Na^+** 140 ppm
Die Shear Strength @ 23°C: ≥20 Kg / 6,800 psi	**NH_4^+** 354 ppm
Degradation Temp. (TGA): 425°C	**K^+** 0 ppm
	***Particle Size:** ≤ 50 Microns
Thermal Properties:	
Thermal Conductivity: 0.70 W/mK	
Electrical Properties:	
Dielectric Constant (1KHz): 4.75	**Volume Resistivity @ 23°C:** ≤ 2 x 10^{13} Ohm-cm
Dissipation Factor (1KHz): 0.006	

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